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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,626

09/12/2006

Hans Graf

GRAF3002/JEK

6394

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BACON & THOMAS, PLLC

625 SLATERS LANE

FOURTH FLOOR

ALEXANDRIA, VA 22314-1176

EXAMINER

HESS, DANIEL A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,626	Applicant(s) GRAF ET AL.	
	Examiner DANIEL A. HESS	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 23 and 25-33 is/are rejected.
- 7) ☒ Claim(s) 22 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/7/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is responsive to applicant's filing of 9/12/2006, which has been entered into the electronic file of record.

Claim Rejections - 35 USC § 112

Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, in particular, the language "an authentication has at least one first data record" is problematic. Authentication is a process, not an entity or storage medium and a process does not "have" anything.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "fifth step" in the second line. There is insufficient antecedent basis for this limitation in the claim because the second through fourth steps are not present in claim 24 upon which 25 depends.

Claim 25 should depend from 23 to remedy this.

Art Unit: 2876

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 9, 15, 16, 18-21, 23, 26, 27, 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Appalucci et al. (US 2003/057276), of record in the instant IDS.

Attention is drawn to figure 6 of Appalucci. Antenna-based and optical (bar code) data are both available on a tag at once. They are checked against each other. It is noted that data transmission is, broadly, a barcoder reader reading the card and an RFID reader also reading the card. As for claims 21-22, there is a simple authentication, namely a matching of the barcode data against the RFID data. As for claim 23, two data records are read out, from the optical and RFID channels. As for claim 26, one may broadly say that there is a challenge-response, because a second channel is checked to determine if its results match a first channel. As for claim 27, it is noted that Appalucci et al. teaches (see paragraph 0020) that the optical and RFID readers can be integrated into a single unit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2876

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci as applied to claim 1, in view of Kawan (US 2003/052159).

Re claims 2, 4: Appalucci lacks a storage area that is readable only after an authentication.

Kawan teaches (see for example paragraphs 0030, 0031, 0043) encryption in a multi-format data carrier.

In view of Kawan's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known encryption for some parts of data carrier of Appalucci. These encrypted parts would be readable only after an authentication (i.e. successful decryption).

Re claim 17: In Kawan, communications between card and reader are bi-directional. A motivation for this is to permit more complex exchanges such as ones involving encryption.

Claims 6, 12, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci et al. as applied to claim 1 above, in view of Cato (US 5,874,724).

Re claims 6 and 12: Lacking in Appalucci et al. is a feature where the function of the chip on the data carrier depends on light incoming to a light sensor.

Cato teaches (see whole document) an arrangement where the function of the chip on the data carrier depends on light incoming to a light sensor.

Art Unit: 2876

In view of Cato's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known arrangement where the function of the chip depends on light reaching a light sensor so that a card cannot be read improperly, sight unseen. Note that while Cato emphasizes light frequency, intensity is also important; if intensity is too low, the card will not respond.

Re claims 28, 30: Cato's reader is broadly sending out a signal when he sends activation light. This light may be infrared (see column 5, line 65 of Cato.

Claims 8, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci as applied to claim 1 above.

Re claim 8: Matrix code is a common variant of the barcodes Appalucci teaches. They are art recognized equivalents, and the motivation for substituting matrix codes would be for greater data storage capacity.

Re claim 31: Card interfaces are often mobile; one example is the card interface at a point of sale which may be small enough to move around.

Claims 10, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci as applied to claim 1 above, in view of Pitroda (US 5590038).

Re claims 10, 11: Pitroda teaches (see figure 1) the relatively common arrangement where optical information (data) is displayed on an LCD screen of a card.

In view of Pitroda's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known LCD screen on a card

Art Unit: 2876

in order to allow optical data to be variable and also to communicate visually with a cardholder.

A display can serve as a user interface, as in Pitroda.

Re claim 13: Pitroda teaches (see ref. 16 of figure 1) a speaker on a card.

In view of Pitroda's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known speaker in order to aid the blind who may use the card.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci et al. as applied to claim 1 above, in view of Welte et al. (US 2005/0184150).

Lacking in Appalucci et al. is a teaching of a vibration sensor on a card.

Welte et al. teaches (paragraphs 0024 and 0025) that a vibration sensor maybe on objects such as cards to increase security.

In view of Welte's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known vibration sensor to determine those times when card theft is a risk.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Appalucci as applied to claim 1 above, in view of Jachimowicz (US 5,789,733) of record in the applicant's IDS.

Jachimowicz shows 2-way optical communication where a modulated optical signal is used between a card and a reader.

Art Unit: 2876

A motivation for Jachimowicz's 2 way optical communication is that it allows for more complex exchanges involving encryption. A motivation for encryption, in turn is for greater security.

Allowable Subject Matter

Claims 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

All of the limitations of claims 22 and 24 respectively, in the full context of all the claims and limitations in the claims upon which they depend, are neither shown nor suggested in the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL A. HESS whose telephone number is (571)272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel A Hess/

Primary Examiner, Art Unit 2876